

a1 cont. 113 through 115 provided on the manual manipulator 110, but not by the manual manipulator 110 itself with the obvious result that the function regulating speed of the vehicle-mounted electric device cannot be appropriately controlled by regulating the quantity of the manipulation of the manual manipulator 110. Therefore, it is necessary to alternately use the manual manipulator 110 and the rotary variable resistors 113 through 115, making it impossible to quickly regulate the function of any selected vehicle-mounted electric device.

Please rewrite the paragraph on page 8, lines 10-15 as follows:

a2 (Amended) An object of the present invention, is to obviate these shortcomings of the prior art, and to provide a vehicle-mounted input unit capable of enabling the manual manipulator to give its operator a feel of resistance varying with what is done by operating the manipulator and thereby affording excellent operating convenience.

Please rewrite the paragraph beginning on page 9, line 24 and ending on page 10, line 14 as follows:

a3 (Amended) As this configuration enables the manual manipulator to give its operator a feel of resistance varying with the working force applied thereto, when for instance a powerful operator forcefully operates the manual manipulator, the feel can be strengthened or, conversely, when a relatively powerless operator operates the manual manipulator with a relatively small force, it can be weakened to enable the operator, irrespective of his or her relative power, to feel satisfactory operating convenience. Incidentally, the working force applied to the manual manipulator can be computed by differentiating twice a change in the position signals supplied from the position sensors to ascertain the operating acceleration of the manual manipulator, and applying the second law of motion ( $F = m \cdot a$ , wherein  $F$  is the working force applied to the manual manipulator,  $m$  is the mass of the manual manipulator and the operator's fingers, and  $a$  is the operating acceleration of the manual manipulator) to the acceleration thereby obtained.

Please rewrite the paragraph on page 14, lines 1-5 as follows:

a4 (Amended) Fig. 7A illustrates a menu of vehicle-mounted electronic devices that can be selected by the manual manipulation. Fig. 7B illustrates the various

a4 cond. directions that the manual manipulator mechanism must be moved to select the various types of electric devices.

Please rewrite the paragraph on page 14, lines 24-25 as follows:

a5 (Amended) Fig. 14 shows an interior view of an automobile in which a prior art vehicle-mounted input unit is installed.

Please rewrite the paragraph on page 15, lines 1-2 as follows:

a6 (Amended) Fig. 16 shows a plan view of a prior art manual manipulator of the vehicle-mounted input unit shown in Fig. 15.

Please rewrite the paragraph on page 15, lines 3-4 as follows:

a7 (Amended) Fig. 17 shows a plan of a prior art guide plate of the vehicle-mounted input unit shown in Fig. 15.

Please rewrite the paragraph on page 15, lines 6-8 as follows:

a8 (Amended) A vehicle-mounted input unit, which is the preferred embodiment of the present invention, will be described below with reference to accompanying drawings.

Please rewrite the paragraph beginning on page 15, line 15 and ending on page 16, line 4 as follows:

a9 (Amended) As is evident from Fig. 1, in a vehicle-mounted input unit 1 pertaining to this embodiment of the invention, a case 2 is formed in a rectangular container shape of a required size, and on the upper face of the case 2 are disposed a manual manipulator 3, six push-button switches 4a, 4b, 4c, 4d, 4e and 4f arranged in an arc centering on the setting section of the manual manipulator 3, three push-button switch 5a, 5b and 5c arranged outside the positions of and cocentrically with the six push-button switches, and a volume control knob 6. On the front face of the case 2 are opened a card slot 7 and a disk slot 8. This vehicle-mounted input unit is fitted, as illustrated in Fig. 2, on the dashboard A of an automobile between its driver's seat B and front passenger seat C and, cooperating with a display unit D provided on the dashboard A and a control section (not shown) housed in the dashboard A, can perform its required functions. It should be noted that this invention can be used in right hand drive vehicles, as illustrated, or left hand drive vehicles.